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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,685	06/23/2003	Tatsuo Shimofurutani	KASA:026	7994

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EXAMINER
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PETERSON, KENNETH E

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/601,685

Applicant(s)

SHIMOFURUTANI, TATSUO

Examiner

Kenneth E Peterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 and 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 14 mar 05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. It is noted that the headers for claims 4,7,8 and 9 are incorrect, and should instead read (Withdrawn) or possibly (Withdrawn and currently amended).

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Causey '468, as best seen in figure 4.

4. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Yumino '670, as best seen in figures 4 and 6.

5. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilson '613. Perhaps the prior art described on columns 1 and 2 best meets Applicant's claims. The tooth edge is described as being circumferentially shorter than the blade central and rear portions (lines 41-50, column 1). Therefor, the teeth must be, in some way, angled inwardly from the central portion of the saw blade.

6. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson '299. Perhaps the prior art described on columns 1 and 2 best meets Applicant's claims. The tooth edge is described as being circumferentially shorter than

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the blade central portion, with the margin line being spaced "somewhat below the bottom of the gullet" (lines 21,22, column 2). Therefor, the teeth must be, in some way, angled inwardly from the central portion of the saw blade.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1,2,3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the above references.

None of the above references disclose projecting tooth tips of the recited dimension. Examiner takes Official Notice that such tips are well known on band saws. Furthermore, the width (or protrusion thickness) of the tooth tip is an old and well known results-effective variable. A wide tip will make a wide kerf, with little chance of blade binding or overheating, but on the downside, much valuable wood is turned into sawdust. A less wide tip will produce less sawdust, but there is greater chance of blade binding or overheating in the kerf since the sides of the blade are much more likely to rub against the wood in the kerf. Given that one of ordinary skill knows this results-effective variable, it would have been obvious for him to have selected almost any level of protrusion, including 0.02mm, in order to properly balance his desire to prevent binding and overheating with his desire to minimize wood wastage (sawdust).

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9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

Applicant has overcome the drawing objection.

10. Made of record but not relied on are patents to Allen, Howe, Bird and Phillips showing pertinent band saws. Examiner regrets not having found some of these references earlier, but the amendments to Applicant's claims instigated a different type of search that yielded this great new art.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson at 571-272-4512, on Monday-Thursday, 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap, can be reached at 571-272-4514. In lieu of mailing, it is encouraged that papers be faxed to 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see <http://pair-direct.uspto.gov> or call the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 6, 2005



KENNETH E. PETERSON  
PRIMARY EXAMINER